Biology Major - Education Abroad Advising Guide

"Expand your knowledge and skills, while gaining a different perspective on the natural sciences."

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Why study Biology abroad?

- Invest in your future and add value to your degree
- Improve your chances of getting a job and expand career options
- Earn credits towards your degree
- Become more independent and self-confident
- Gain intercultural communication skills and expand your problem-solving skills
- Stand out to employers and prepare you to work in an increasingly diverse world
- Gain new perspective on your field
- Improve your language skills
- Develop a global network of faculty, students, friends, and locals
- Access to unique biology course options

When is the best time to study abroad?

This is very dependent on the students' interests, career goals and the study abroad program. Many biology students study abroad in their junior and senior year after completing required courses, when they have more elective options. Some study abroad programs do not have options for students to take their lower level coursework, while other programs do. Students applying to professional and graduate schools often have to plan their study abroad program around taking entrance exams and/or completing required pre-requisites. No matter what, there is likely a program and time that will work for you. Make sure to talk with your biology advisor to determine what will work best for you.

What courses should I take abroad?

There are many different options for the coursework a biology major can take abroad, including both major and non-major requirements. If you are looking to take biology coursework abroad, the department encourages taking biology electives. However, there are programs that offer lower level and required courses for the major if you plan accordingly.

The Department of Biology works closely with the Education Abroad office to ensure that classes taken abroad will fulfill requirements in your degree. The study abroad programs listed here were carefully selected for you. Students can choose to participate in programs that will fulfill major, minor, general education, and/or elective requirements.

How can I afford to study abroad?

Studying abroad does not have to be expensive! VCU offers a variety of program options to fit most students' budgets and the Education Abroad office assists students with identifying and applying for funding. Consider the following:

- **Use what you already have!** Most financial aid and scholarships that you already receive can be used toward study abroad. Other sources of funding may also help: pre-paid tuition plans, veteran's benefits, etc.
- **Scholarships:** There are VCU scholarships to study abroad as well as nationally competitive scholarships. Begin your search on our site and at StudyAbroadFunding.org and DiversityAbroad.com
- **Program length:** Per day expenses are often less expensive on semester programs than on summer programs and airfare may cost the same regardless of the length of your stay
- **Program type:** Programs with more structure that include group activities or excursions may be more expensive than exchange programs which include tuition, room, and board.
- **Cost of living:** If you're looking to save money on studying abroad, avoid destinations with a high cost of living like capital cities and popular tourist destinations.
- What's included? When considering the cost of a program, determine what the program fee includes...and what it doesn't. Some are almost all-inclusive and will cover the cost of a cell phone, insurance, group excursions and welcome/farewell receptions whereas other programs cover only the basics.

Notable Funding Opportunities for Biology Majors

Benjamin A. Gilman International Scholarship: For US undergraduates with Pell Grants; for programs at least 28 days in length; diversity of student and destination is a priority; scholarships up to \$5,000 available; additional \$3,000 available to study critical need languages such as Arabic, Chinese, Turkish, Indic, Korean, Russian, etc.

IIE.org/Programs/Gilman-Scholarship-Program

Boren Awards for International Study: For US undergraduates to study in areas critical to US interests including Africa, Asia, Central & Eastern Europe, Eurasia, Latin America, and the Middle East; scholarships up to \$20,000; preference is given to study less commonly taught languages such as Arabic, Chinese, Korean, Portuguese, Russian, and Swahili. **Borenawards.org**

Phi Kappa Phi: For undergraduates with at least a cumulative GPA of at least 3.75 **Phikappaphi.org**

Fund for Education Abroad: General scholarships up to \$10,000 for US undergraduates planning to spend a minimum of 30 days abroad; Hilary Echo Douglas scholarship for study in Vietnam; Rainbow Scholarship for LGBTQI students **FundForEducationAbroad.org**

School for Field Studies Financial Aid: SFS awards over \$350,000 in need-based scholarships and grants each year, and about 90% of students who apply for SFS aid receive it! **Fieldstudies.org/admissions/aid**

What are my next steps?

- 1. **Attend a First Advising Session.** These group advising sessions are held Monday-Friday at 12:30 in the Education Abroad office.
- 2. Investigate Programs. Explore global.vcu.edu/programs and talk to advisors and past participants for guidance
- 3. **Inform your academic advisor** of your interest in studying abroad
- 4. **Explore the approved course database** to view pre-approved courses; talk with your academic advisor for approval on other courses
- 5. **Explore your funding options.** Speak with a Financial Aid counselor, investigate and apply for scholarships

Featured Education Abroad Programs

The following are a list of programs recommended for Biology majors. The sections below are organized by program type and include many different program models including group and individual programs, study abroad, service-learning abroad, research abroad, and internship abroad programs. While these are featured programs for Biology majors, students are by no means limited to these opportunities. For all available programs, please visit **global.vcu.edu/abroad/programs** or contact an Education Abroad advisor.

Short-Term Faculty-Led Programs

VCU faculty members lead groups of VCU students for short-term programs during the summer, spring break and winter intersession. Participants earn VCU credit. New programs are created every year, and most are open to students from any major. See our <u>website</u> for the most current list of faculty-led programs.

Departmental and Partnership Exchanges

VCU's relationship with the universities below allows students to study at the institutions for a semester or an academic year while paying standard tuition and fees to VCU. Other expenses – such as room, board, airfare, insurance and spending money – are the responsibility of the student.

AUSTRALIA: Curtin University

studyabroad.curtin.edu.au/studying-at-curtin/

Semester or year exchange

Located in Perth, Western Australia, Curtin University is a large public university that offers a wide variety of courses in the sciences within their <u>Faculty of Health Sciences</u> and <u>Faculty of Science and Engineering</u>. Topics courses (BIOL and BIOZ 391) are widely available in subjects such as Quantitative Biology, Marine Biodiversity, Conservation Biology, and Botany. Students may also participate in a semester of research, upon approval from Curtin's faculty.

ENGLAND: University of the West of England (UWE)

www.uwe.ac.uk/

Academic year exchange only (fall semester placements are considered on a case-by-case basis)

Located two hours west of London in South West England, UWE is a large, public university spread across the city of Bristol on various campuses. A range of BIOL courses are available including: The Living World (BIOL/Z 101), Cell & Biochemistry (BIOL 218 & BIOZ 291), Human Anatomy & Physiology (BIOL 205 & PHIS/Z 206), Biology of Microorganisms (BIOL/Z 313), Molecular Aspects of Life (BIOL 2XX), Scientific and Analytical Skills (BIOL/Z 303), Applied Genetics (BIOL 310), Genetics & Evolution (BIOL/Z 310), Animals & Ecosystems (BIOL/Z 317), Plant Growth & Survival (BIOL/Z 321), Immunology and Disease (BIOL 455), Conservation Biology (BIOL/Z 491), Drugs and Disease (BIOL/Z 491), Applied Ecology (BIOL/Z 491), Molecular Genetics (BIOL 540, BIOZ 541).

SPAIN: University of Córdoba

www.uco.es/internacional/extranjeros/

Spring semester or full-year exchange

UCO is a large university in southern Spain that offers sciences courses taught in Spanish. Students must have the equivalent of 9 credits of 300-level Spanish in order to be eligible to apply. Biology students may study a variety of Biology courses in the <u>Facultad de Ciencias</u> on the Rabanales campus which is located 20-30 minutes outside of the historic city centre. If desired, students may also enroll in Spanish language and literature courses on the campus of the <u>Facultad de Filosofía y Letras</u> which is located in the Judería, or Jewish quarter, in old Córdoba. Former participants have studied Cellular Biology Development, Botany, and Animal Physiology.

International Student Exchange Program (ISEP)

Choose from over 300 universities around the world offering summer, semester and year-long programs. Apply to up to 10 institutions on a single application. ISEP offers two types of placements: ISEP-Exchange (program fee based on VCU's in-state tuition, room and board) and ISEP-Direct (program fee based on host university's tuition, room and board). For best chance of exchange placement, apply by August 15 for spring programs and January 15 for fall/full-year programs.

ISEP institutions offering Biology courses taught in **English**:

NEW ZEALAND: Massey University

http://www.massey.ac.nz/massey/home.cfm

Type: ISEP-Exchange and ISEP Direct

Courses taught in English

Strengths: Veterinary, Animal and Biomedical Sciences; Agriculture and Environment; Natural and Mathematical Sciences; Health and Life

Sciences; Human Physiology; Human Nutrition; Food Science; Food Technology; Food Engineering

Highlights: Scholarships available. Course info is available online.

BOTSWANA: University of Botswana

http://www.ub.bw/

Type: ISEP-Exchange and ISEP Direct

Courses taught in English

Strengths: Combine biological research and national development study; Health, education, agriculture, environment and natural resources

Highlights: Many volunteer opportunities available in health, forestry, and conservation

AUSTRALIA: La Trobe University

http://www.latrobe.edu.au/

Type: ISEP-Exchange and ISEP Direct

Courses taught in English

Strengths: Animal Veterinary Biosciences; Biochemistry and Molecular Biology; Biotechnology, Genetics; Microbiology; Wildlife and

Conservation Biology

Highlights: Study enhanced by on-campus Animal House, La Trobe Wildlife Sanctuary, La Trobe Institute for Molecular Science, Biology

Field Trips to Great Barrier Reef, Wilsons Promontory, Otway Ranges, etc.

NORTHERN IRELAND: University of Ulster

https://www.ulster.ac.uk/

Type: ISEP-Exchange and ISEP Direct

Courses taught in English

Strengths: Biology; Biomedical Sciences; Earth Sciences; Ecology; Geography; Marine Biology; Human Nutrition

Highlights: Coleraine campus offers wide variety of biological sciences. Course info is available online.

FINLAND: University of Oulu Summer Program: Northern Nature and Environment

http://www.oulu.fi/english/

Type: ISEP-Exchange Courses taught in English

Program provides a solid introduction to the ecosystems and fauna, flora and vegetation of Finland and northern Scandinavia. Through lectures, courses, and seminars held in Oulu and field courses arranged at the university's research station in northern Finland, students explore the country's natural and cultural beauty while learning about biodiversity and genetic adaptation in the North.

Courses: Field Course in Aquatic Animals (2 credits); Field Course in Ecological Botany (2.5-3 credits); Field Course in Terrestrial Animals (2 credits); Research Training (1-7 credits) with research topics including: the adaptation of plant and animal species to the northern conditions; sub arctic plants in changing environment; soil as an ecosystem; seasonal adaptation; life history strategies and population dynamics in northern populations of birds, etc.

Pre-requisites: Students must have studied Biology for two or more years.

FINLAND: University of Helsinki

https://www.helsinki.fi/en

Type: ISEP-Exchange Courses available in English

Strengths: Biosciences; Ecology and Evolutionary Biology; Microbiology; Genetics; Physiology and Neuroscience; Plant Biology;

Environmental Sciences; Food Sciences; Agriculture and Forestry; Veterinary Sciences

Highlights: Research emphases include genetics research, systematic biology, biotechnology, atmospheric and climate change and

neuroscience. Course information is available online.

SCOTLAND: Edinburgh Napier University

http://www.napier.ac.uk/

Type: ISEP-Exchange and ISEP Direct

Courses taught in English

Strengths: Biological Sciences; Animal Biology; Environmental Biology; Forensic Biology; Marine and Freshwater Biology

Highlights: The Sighthill Campus offers Health, Life and Social Sciences, state-of-the-art research facilities and laboratory equipment.

Course info is available online.

But that's not all. ISEP sites around the world offer biology courses!

Programs In **English**:

AUSTRALIA: Macquarie University
AUSTRALIA: RMIT University
AUSTRALIA: University of Canberra
AUSTRALIA: Univ. of Southern Queensland
AUSTRALIA: Univ. of Technology, Sydney
AUSTRALIA: Univ. of Western Sydney
AUSTRIA: Karl-Franzens-Universität Graz
AUSTRIA: Technische Universität Graz

CANADA: Brock University **CANADA:** Laurentian University **CANADA:** Regina University

CHINA: Chinese University of Hong Kong

CHINA: Southwest University

CZECH REPUBLIC: Masaryk University **ENGLAND:** Nottingham Trent University **ENGLAND:** University of Central Lancashire

ENGLAND: University of Chester ENGLAND: University of East London ENGLAND: University of Plymouth ENGLAND: University of Roehampton FIJI: University of the South Pacific

FINLAND: Abo Akademi University- Abo and Vasa Campuses **FINLAND:** University of Eastern Finland- Joensuu and Kuopio

Campuses

FINLAND: University of Jyväskylä **FINLAND:** University of Oulu

GERMANY: Justus-Liebig-Univ. Giessen **HUNGARY:** University of Debrecen

ICELAND: University of Iceland **INDIA:** University of Hyderabad

SOUTH KOREA: Ewha Womans University SOUTH KOREA: Hanyang University SOUTH KOREA: Keimyung University SOUTH KOREA: Korea University SOUTH KOREA: Yonsei University LATVIA: University of Latvia LITHUANIA: Vilnius University

MALAYSIA: Universiti Pendidkan Sultan Idris

MOROCCO: Al Akhawayn University

NETHERLANDS: Radboud University Nijmegen

NETHERLANDS: Leiden University

NETHERLANDS: VU University Amsterdam

NORWAY: University of Nordland **POLAND:** Wroclaw University

SOUTH AFRICA: University of Johannesburg

SPAIN: University Rovira I Virgili **SWEDEN:** Karlstad University **SWEDEN:** Mälarden University **SWEDEN:** Södertörn University

SWEDEN: Linnaeus University- Kalmar and Växjö Campuses

SWITZERLAND: University Bern **SWITZERLAND:** University of Zürich

UNITED ARAB EMIRATES: American University of Sharjah **VIETNAM:** International University- Vietnam National University

HCMC

ISEP Programs In Host Language:

GERMAN: AUSTRIA: Universität Salzburg; GERMANY: Justus-Liebig-Univ. Giessen; GERMANY: TU Braunschweig; GERMANY:

Universität Bielefeld; **GERMANY:** Universität Marburg; **SWITZERLAND:** Universität Bern; **SWITZERLAND:** Université

de Friboura

FRENCH: FRANCE: INSA Lyon; FRANCE: Université d'Angers; FRANCE: Université de Caen; FRANCE: Université de Franche-

Comté; **FRANCE**: Université de Nantes; **FRANCE**: Université de Nice; **FRANCE**: Université de Picardie Jules Verne; **FRANCE**: Université de Saint-Etienne; **FRANCE**: Université de Savoie: **FRANCE**: Université du Havre; **FRANCE**:

Université du Maine; **FRANCE**: Université Paul Valéry; **FRANCE LA RÉUNION**: Univ. de la Réunion; **FRANCE ANTILLES**: Université des Antilles et de la Guyane; **SWITZERLAND**: Université de Fribourg; **SWITZERLAND**:

Université Lausanne

MANDARIN: TAIWAN: Providence University

SPANISH: ARGENTINA: Univ. Católica de Córdoba; CHILE: Univ. Católica del Norte – Antofagasta and Coquimbo Campuses;

CHILE: PUC Valparaíso; COLOMBIA: Universidad Icesi; COSTA RICA: Universidad Nacional; MEXICO: Tec. De Monterrey; MEXICO: Universidad de Guanajuato; MEXICO: Universidad Popular Autónoma del Estado de Puebla; PUERTO RICO: UPR-Mayagüez-International and Rio Piedras-International Campuses; SPAIN: Univ. Complutense de Madrid; SPAIN: Univ. de Illes Balears; SPAIN: Univ. de Málaga; SPAIN: Univ. de Murcia; SPAIN: Univ. de Vigo

PORTUGAL: Univ. de les liles Balears; **SPAIN:** Univ. de Malaga; **SPA**

PORTUGESE: PORTUGAL: Universidade Luso **JAPANESE: JAPAN:** Rikkyo University

ITALY: Universitá degli Studi di Pavia; ITALY: Universitá degli Studi di Trieste; ITALY: Universitá degli Studi di Urbino

Programs In Host Language & English

GERMAN: AUSTRIA: Karl-Franzens-Univ. Graz; AUSTRIA: Technische Universität Graz; SWITZERLAND: Universität Zürich

FRENCH: CANADA: Laurentian University SPANISH: SPAIN: Universitat Rovira I Virgili

Affiliate and Alternative Programs

The following programs are sponsored by 1) study abroad organizations/providers, 2) other US institutions, or 3) foreign universities who accept visiting international students. Prices range, though most programs are between \$10,000-\$15,000 for a semester including housing, meals, tuition, and on-site support services. Programs below are organized alphabetically by country.

BRAZIL: Universidade Federal de Santa Catarina (UFSC) in Florianópolis (available through <u>USAC</u>)

http://usac.unr.edu/study-abroad-programs/brazil/florianopolis

Term: Year, Semester, or Summer **Language:** English and Portuguese

Courses include: Natural Resource Management, Principles of Conservation, and Wildlife Conservation

COLOMBIA: Universidad del Norte (available through ISA)

http://studiesabroad.com/barranquilla

Term: Semester or Summer **Language:** English and Spanish

Courses include: Biology Genomes and Society, Caribbean Birds, Electrochemistry and Bioenergetics, Medicinal Plants, Research

Project, Human Development, Bioethics,

COSTA RICA: Veritas University in San José (available through CEA, ISA, and API)

http://en.veritas.cr/

Term: Semester, Quarter, Year or Summer **Language:** Courses taught in Spanish and English

Courses include: Tropical Marine Biology, Land Vertebrates of Costa Rica, Tropical Ecology, Costa Rica Health Care System and

Tropical Medicine

DENMARK: Danish Institute for Study Abroad

<u>http://www.disabroad.org</u> **Term:** Semester or Summer

Language: Courses taught in English

Courses include: Glaciers and Human Impact: Icelandic Climate Change Case Study, Human Health and Disease: A Clinical Approach, Ice Cores and Ice Ages: Greenlandic Climate Change Case Study, Medical Biotechnology and Drug Development, Psychopharmacology: Substances and the Brain, Bioinformatics, Biological Conservation and Biodiversity, Marine Mammals, Cell Factories, Cancer, Diabetes, Immunology, Medical Exploration of HIV/AIDS, Neuroscience of Fear, Phenotypic Plasticity, and more.

DOMINICAN REPUBLIC: Universidad Iberoamericana (available through ISA)

http://studiesabroad.com/programs/country/dominican republic/city/santo domingo/viewUniversity

Term: Semester, Summer or Year

Language: Courses taught in English and Spanish

Courses include: Neuroscience, General Biology, Anatomy and Physiology, Psychophysiology and more.

ENGLAND: University of Reading (available through ISA)

<u>http://studiesabroad.com/reading</u> **Term:** Semester or Summer

Language: Courses taught in English

Courses include: Full courses in the Biology, Chemistry, Math and Physical Science curriculum available.

ENGLAND: University of Westminster (available through API, CISabroad, CEA)

https://www.westminster.ac.uk/Term: Semester, Summer or YearLanguage: Courses taught in English

Courses include: Full curriculum in the Department of Biomedical Sciences available

ENGLAND: University of Roehampton (available through ISA and CISabroad)

http://www.roehampton.ac.uk/home/ Term: Semester, Summer, or Year

Courses include: Biochemistry, Invertebrate Biology, Intro to Plants, Intro to Human Disease, Animal Biology, Pharmacology and

Toxicology, Immunology, Epidemiology, Medical Microbiology, Pathophysiology, and more.

FRANCE: SKEMA-EAI in the French Riviera (available through CEA)

http://www.ceastudyabroad.com/programs/france/sophia antipolis/5041/partner institution description.html

Term: Semester

Language: Most courses taught in English (some taught in French)

Courses include: Biological Discovery, Biostatistics, Life Science, Oceanography, Life Science Laboratory, Organic Chemistry, Genetics

(and lab), and Ecology

IRELAND: University College Cork (available through API and ISA)

http://www.ucc.ie/en/

Term: Semester, Summer, or Year

Courses include: Curriculum available in <u>Book of Modules for Visiting Students</u> including Cells, Biomolecules, Genetics and Evolution, Physiology and Structure of Plants & Animals, Introduction to Ecology, ZEPS Literature Review, Evolution & Diversity, and Research Project.

IRELAND: National University of Ireland Maynooth in Dublin (available through API and ISA)

https://www.maynoothuniversity.ie/

Term: Semester or Year

Courses include: Full curriculum available including Advanced Immunology, Animal Behavior & Comparative Physiology, Antibiotics, Behavioral Ecology, Bioethics, Bioinformatics, Cell Biology, Food Biotechnology, Genomics & Proteomics, Human Biology, Human Genetics, Microbiology, Molecular Biology, Tumor Biology, Neuromuscular Biology, and more.

KENYA & TANZANIA: Wildlife Management Studies and Public Health (available through School for Field Studies)

http://www.fieldstudies.org/eastafrica

Term: Semester (Wildlife Management Studies) and Summer (Wildlife Management & Conservation; Techniques for Wildlife Field Research, Field Practicum in Public Health & Environment)

Language: Courses taught in English

Courses include: Techniques in Wildlife Management, Wildlife Ecology, Environmental Policy and Socioeconomic Values, Directed Research, Introduction to Swahili Language and East African Tribal Communities.

SCOTLAND: University of Glasgow (available through ISA)

http://www.gla.ac.uk/ **Term:** Semester or Year

Courses include: Full curriculum in Life Sciences available including Animal Diversity, Cells and Tissues in Health and Disease, Drugs

and Disease, Ecology, Genetics, Forensic Bioscience, Immunology, Microbiology, and more.

SCOTLAND: University of Stirling (available through API and ISA)

https://www.stir.ac.uk/
Term: Semester or Year

Language: Courses taught in English

Courses include: Plant Ecology and Physiology, Animal Ecology, Marine Biology, Animal Cell Biology, Microbiology, Animal Physiology,

Population & Community Ecology

SOUTH AFRICA: Nelson Mandela Metropolitan University in Port Elizabeth (available through CEA)

https://www.nmmu.ac.za/ **Term:** Semester or Summer

Language: Courses taught in English

Courses/departments include: Departments of Animal Sciences, Biochemistry, Chemistry, Physics and Plant Sciences

SOUTH KOREA: Konkuk University in Seoul (available through ISA)

http://www.konkuk.ac.kr/do/Eng/Index.do

Term: Semester or Summer

Language: Courses taught in English

Courses include: Cell Biology, Molecular Biology of the Cell, Biochemistry II, Molecular Biology, Biochemistry, Organic Chemistry II, Analytical Chemistry II, Biochemistry I & II, Introduction to Analysis I, Intro to Differential Geometry II, Geometry of Surfaces, Differential

Geometry I, Advanced Classical Mechanics, General Chemistry Lab, General Biology Lab, Physical Chemistry

SPAIN: University of Alicante (available through CEA)

http://www.ua.es/en/ **Term:** Semester or Year

Language: Courses taught in English and Spanish

Courses include: Cellular Biology, Ecology, Genetics, Intro to Research, Plant Biodiversity, Plant Physiology, and more.

SPAIN: Pablo de Olavide University in Seville (available through API, CEA, and ISA)

https://www.upo.es/portal/impe/web/portada?lang=en

Term: Semester or Summer

Language: Courses taught in Spanish and English

Courses include: Anatomy & Physiology II, Microbiology, Biochemistry, Organic Chemistry I, Ecological Systems

SPAIN: Universidad Católica de Valencia (available through ISA)

Term: Semester, Summer or Year **Language:** Courses taught in English

Courses include: Biochemistry of Health and Disease, Current Techniques in Molecular Biology, General Biochemistry, Stem Cells,

Biomaterials and Tissue Engineering, Genetic Engineering, Plant Biotechnology, and more.

TURKEY: Boğaziçi University (available for direct-enrollment or through IES and AIFS)

http://www.boun.edu.tr/en_US

Term: Semester, Year or Summer

Language: Courses taught in English and Turkish

Courses include: General Biology, Lab, Human Physiology and Anatomy, Cell Biology, Molecular Biology, Modern Biology, Computer Usage, Genetics, Biochemistry 1 & 2, Practical Applications in Biochemistry and Genetics, Practical Applications in Biochemical

Techniques, Physiology, Microbiology, Molecular Genetics, and more.